

Editorial

Dear Reader,

Within the next days we will start up the second half of 2010. Many things have been achieved but still there is quite a number of challenges waiting for you and us. No matter which of them you will have to face within the next six months: We wish you a lot of success and good luck!

To the midyear we had once again invited to the Summit of international radio experts and to the UserGroup in Lichtenau. For the 15th time already we are looking forward to being your host. With enthusiasm and the utmost effort our team has again taken care this year that your visit will be worthwhile: Reputable speakers, up to date topics, interesting networking opportunities and an entertaining social programme will be waiting for you.

On time with the LS Summit we are happy to present you the latest edition of our "SPECTRUM". In proven brevity we would like to give you an update on LS telcom.

We hope you enjoy the reading and are looking forward to welcoming you in Lichtenau these days.

Latest

Conference Programme LS Summit 2010



- 09:00 – 09:30** **Welcome and Introduction to the LS Summit 2010**
Dr.-Ing. Manfred Leberer, Dr.-Ing. Georg Schöne, Dipl.-Ing. Roland Götz
- 09:30 – 10:00** **The Role of Auctions in Spectrum Assignment**
Karen Wrege, KB Enterprises LLC, USA
- 10:00 – 10:30** **Special Event Preparation and Planning**
Shaun Hendry, Ofcom, United Kingdom
- 10:30 – 11:00** Coffee Break
- 11:00 – 11:30** **Self-Organisation in LTE Networks**
Prof. Dr. Thomas Kürner, Technische Universität Braunschweig, Germany
- 11:30 – 12:00** **Automated Site Selection and Antenna Optimisation of Single Frequency Networks**
Prof. Dr. Xuemin Huang, NG Networks Co., Ltd., China
- 12:00 – 13:30** Lunch Break
- 13:30 – 14:00** **MonView - Monitoring with Open Eyes**
Michael Braun, LS telcom AG, Germany
- 14:00 – 14:30** **Cooperative Relaying - To Cooperate or not to Cooperate**
Tobias Renk, Karlsruhe Institute of Technology (KIT), Communications Engineering Lab, Germany
- 15:00 – 15:30** **TETRA Security Communication System of Stockholm Metro**
Hakan Samuelsson, Axell Wireless, Sweden
- 15:30 – 16:00** **Joint Radar Sensing and Communications based on OFDM Signals for Intelligent Transportation Networks**
Christian Sturm, Karlsruhe Institute of Technology (KIT), Institut für Hochfrequenztechnik und Elektronik, Germany

Afterwards: Ongoing Exhibition & Celebration

Programme is subject to changes



Roland Götz, Dr. Georg Schöne, Dr. Manfred Leberer
Members of the Board



United Arab Emirates Automated Spectrum Management System initiated

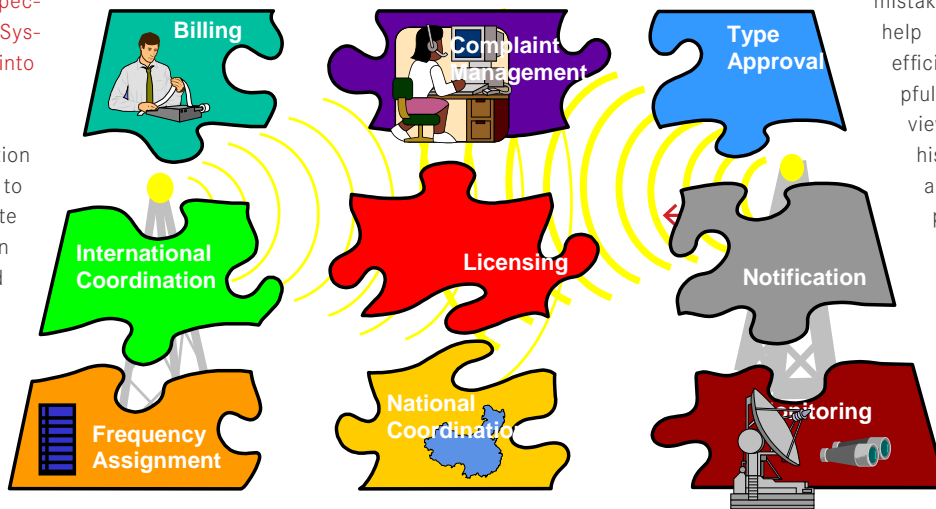
The regulating authority of the United Arab Emirates TRA has put one of the first fully automated Spectrum Management Systems worldwide into operation.

The LS telcom solution enables the authority to handle the complete frequency application process online and automatically. Tariq Al Awadhi, Director of the department for spectrum and international affairs at TRA is convinced that "within the

frame of our e-government strategy the system will help to increase our customers' satisfaction and trans-

parency". Dr. Georg Schöne, CTO of LS telcom AG, also stresses the relevance of the new software:

"From the enquiry to the examination and the billing: ev-erything happens online." This can save time, reduce mistakes and consequently help to work even more efficient. "And extremely helpful for the user: He can view the current status of his application online at any time", the CTO is pleased. ←



Know-how for Frequency Auctions LS telcom cooperates with KB Enterprises

LS telcom AG has broadened its service range around frequency auctions – corresponding software is about to follow shortly.

A cooperation agreement with the American company KB Enterprises LLC (KBE) with its head office in Washington D.C. was signed by the Board in December 2009.

Both companies will make use of their good connections in their familiar markets and will provide their services together.

"By the cooperation with KBE we can offer the authorities even more services from one source", Dr. Manfred Lebherz, spokesman of the Board, stresses. "The longstanding industry experience of both companies guarantees software and consultation which indeed is custom-tailored, explains the Board. But also the network operators already benefit from the bundled compe-

tency of the partners: "First workshops regarding the topic "Frequency Auctions" we have already offered in March in our Training Center in Lichtenau. They have been a complete success", says Dr. Lebherz.

For Karen Wrege, manager and founder of KBE, it is not only important that in times of increasing frequency shortage regulating authorities discover available spectrum, "They also have to assign it to the bidders in the most efficient way so they can use it optimally and obtain competitive advantages. The increasing competition finally helps the consumer", Wrege is sure. She and her team have worked for the American regulating authority for

many years and have carried out many auctions. So they are very familiar with the conditions on the market.

KB Enterprises LLC advises worldwide regulating authorities and network operators in questions of the telecommunication policy as well as the preparation and organisation of frequency auctions. The company managed by long-time experts of the field has developed a special software solution for this. With this software the assigning authorities can slip different criteria into the auction. Headquarters of the company which was founded in 1991 is Washington D.C. ←

SKMM Double Time Dialogue in Malaysia: Board speaks in front of Minister

Dr. Georg Schöne has given a lecture about "Spectrum Management in an unsettled environment" at the SKMM Double Time Dialogue in Cyberjaya and has taken part in a panel discussion.

One of the reputable guests from politics, industry, research and the financial world was Yang Berhormat Dato' Seri Utama Dr Rais bin Yatim, Minister for Information, Communication and Culture in Malaysia as well as YBhg Tan Sri Khalid bin Ramli, Head of the Malaysian regulating authority MCMC. The MCMC has launched this event in 2009. "An impressive format which brings all the ones involved together and

makes prospective decisions possible", praises Dr. Georg Schöne subsequently. The conference focuses latest developments in the field of communication and multimedia and unifies experts from all over the world. Especially for the Asian countries with their quick changes it is very important to set the right course for the communication of tomorrow today. ←



ABU – Digital Broadcast Symposium 2010 COO Roland Götz makes a Speech at the Conference



At the ABU Digital Broadcasting Symposium in Kuala Lumpur LS telcom-COO Roland Götz has given a lecture.

Under the title "First steps towards a more efficient planning" Roland Götz described among others migration strategies, network types and propagation concepts. Afterwards he was available for questions for the 550 industry experts. During the several days lasting conference LS telcom was once again represented with a booth. The symposium hosted by the Asian-Pacific-Broadcasting Union (ABU) each year focuses the latest developments in the broadcast field

and is a platform for representatives of authorities and companies at the same time. The association founded in 1964 understands itself as a non-commercial, governmental-independent holding organisation for broadcast organisations and currently counts 200 member institutions from 58 countries. Their concern is the broadcast de-velopment in the Asia-Pacific area. The ABU is considered to be the third largest of the worldwide eight broadcast organisations; geographically-seen it is worldwide even the largest organisation. Already in 2008 LS telcom was admitted as member. ←

LS telcom joins the TETRA Association

By joining the TETRA Association LS telcom particularly stresses the continuous increase of its international activities in the field of Public Mobile Radio. The TETRA Association was



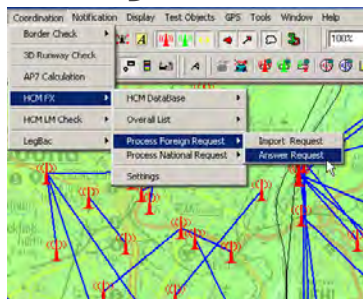
established in December 1994 to create a forum which could act on behalf of all interested parties, representing users, manufacturers, application providers, integrators, operators, test houses and telecom agencies. Today the TETRA Association represents more than 150 organisations from all continents of the world.

The goal for the TETRA Association is to provide a forum for all those interested in TETRA to encourage adoption of the standard and support initiatives to obtain appropriate levels of spectrum such that growth in operational TETRA systems is not restricted by regulation. ←

SPECTRAemc now with integrated HCM Coordination

SPECTRAemc, LS telcom's flagship software for technical frequency assignment has been extended with essential functions on border coordination.

In addition to the already implemented coordination capabilities, SPECTRAemc now also supports international coordination according to the HCM agreement. Harmonised Calculation Method (HCM) is an internationally agreed procedure to determine the fieldstrength of radio services in coverage areas. The introduction of the HCM Agreement by European Regulating Authorities was carried out with the aim to optimally exploit and prevent harmful interference of the specified frequency spectrum in the border area. SPECTRAemc supports the HCM agreement for the frequency range of landmobile as well as microwave services. ←



TETRA System for Cape Town International Airport

LS telcom was successful together with Integcomm to design, supply and install a TETRA system for the Cape Town International Airport. LS telcom was responsible for the RF network design and the major task was to ensure the largest possible coverage of all the operations at the airport. The supplier of the TETRA system is EADS. ←

TETRA-System for Sasol

LS telcom performed a TETRA planning project for Sasol at their second plant in South Africa.

Sasol is a large petroleum manufacturer who uses coal for the source of the petroleum manufacturing process. It is obvious that the accuracy of the design of a network for this environment is critical as it affects many lives and millions of operational cost. LS telcom was responsible for the RF planning tasks which included the microwave link and TETRA planning. The TETRA equipment used for the project was supplied by Rohde & Schwarz and the microwave link equipment was supplied by Nera. The

TETRA system was introduced to replace the old analogue two way radio system which was installed some years ago. The new TETRA network was planned to provide secure radio communication at the main plant and between the main plant and the coal mines that provide the coal for the petroleum manufacturing process.

The project has already been implemented and put into operation. LS telcom received an excellent feedback on the planning accuracy and for this reason was again selected for doing the planning for a second petroleum plant in South Africa during the coming months. ←

SPOT ON

New SPECTRA customers

The Regulating Authority of Cape Verde placed an order with LS telcom for the implementation of an integrated spectrum management system with subsequent maintenance.

As part of an international tender, the Regulator in Macedonia also opted for the SPECTRA system. LS telcom is delighted to support another customer in the Balkans during the implementation of a spectrum management system.

MULTIlink for the "Deutsche Bahn"

DB Systel is a system partner of the Deutsche Bahn, responsible for the development and operation of high-performance IT and telecom systems. To plan and optimise additional microwave links, DB System decided to implement MULTIlink.

TETRA Planning in Saudi Arabia

Radiocon Gulf Consult has charged LS telcom with carrying out a radio analysis in the TETRA network of Saudi Aramco in Jeddah. Besides the tool based coverage, frequency and capacity calculations the planning of the object coverage and the associated site and building inspections are main focus of the order.

Frequency portals go "online"

Under a directive of the European Commission, national regulators are prompted to publish important information from the respective frequency bands on the Internet in order to create highest possible transparency. Together with clients in the Netherlands and Portugal, LS telcom developed corresponding frequency portals, which will soon go in operation and provide relevant information to the public "online".

CHIRplus_BC via CITRIX....

In order to further advance flexible and decentralized planning of digital broadcasting networks, RAI - the national broadcaster in Italy - purchased further licences of the radio planning software CHIRplus_BC. The software solution will be provided online via CITRIX to its outlets.

....and in South Africa

Just in time for the World Cup preparation, our long standing customer Multi-choice of South Africa implemented the radio planning software CHIRplus_BC. CHIRplus_BC is used mainly for planning and optimisation of DVB-T/H locations.



Visit us at
our Booth.....

**IBC Amsterdam 2010,
Netherlands**

10th - 14th September 2010,
Stand No. 8.E39

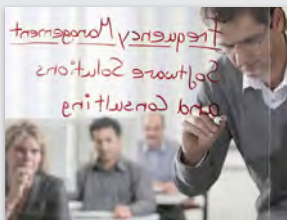
**EMC Europe Sympo-
sium & Exhibition,
Wroclaw, Poland**

14th - 16th September 2010

**PMR Expo 2010,
Cologne, Germany**

23rd - 25th November 2010

A softcopy of the complete
Training Calendar can be
downloaded from our website :
www.LStelcom.com



Training Calendar
July 2010-December 2011

LS telcom



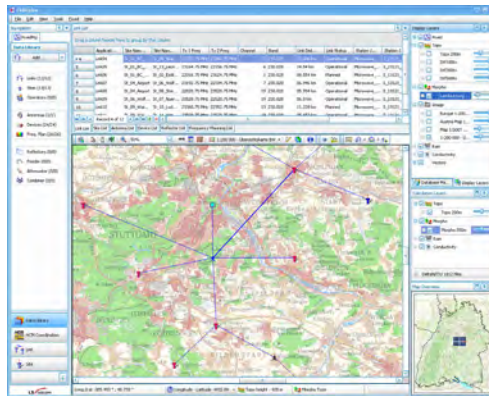
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for further information on our
seminars or for our customised
training programmes

New Tool Platform SPEED successfully delivered for the First Time

After years of intensive development, the new tool platform SPEED has been successfully delivered to customers in recent weeks for the first time.

What internally evolved under the project name SPEED, will now be marketed under the renowned brand name CHIRplus. The new tool platform offers maximum flexibility and productivity for both customers and LS telcom. As the successor

model of MULTIlink, CHIRplus_FX is the first product on the new platform. CHIRplus_FX constitutes the perfect platform for the planning, coordination and optimization of microwave links and networks. After the successful launch of CHIRplus_FX, additional planning and coordination tools will be ported to the new platform in order to provide the advantages of this new generation of software to all our customers as soon as possible. ←



Upcoming Training Courses and Seminars

Spectrum Management

Technical Issues of Radio Spectrum Management
25th-29th October 2010

Spectrum Monitoring Measurements Training Week

19th-20th October 2010 (Spectrum Monitoring Measurements & Techniques)
21st-22nd October 2010 (Practical Spectrum Monitoring Measurements)

Spectrum Auction
16th-18th November 2010

V-Sat - Satellite Communication via Very Small Aperture Terminals
01st-02nd December 2010

Broadcast

Broadcast Training Week
26th-27th October 2010 (Broadcast Planning Basic)
28th-29th October 2010 (Broadcast Planning Advanced)

Broadcast Training Week
Broadcast Planning Tool - CHIRplus_BC (Radio/TV, Analogue/Digital)
15th-17th November 2010

Broadcast Planning Exercises using CHIRplus_BC
18th-19th November 2010

NOW available – Latest Version of the LS telcom's Training Calendar published

The new Training Calendar with proven, revised and new courses e.g. Spectrum Auction, Practical Spectrum Monitoring Measurements, V-SAT as well as many more seminars is now available.

The validity of the new Training Calendar has been extended in order to give you more flexibility to find the most suitable schedule.

You can download the Training Calendar from our homepage www.LStelcom.com.

If you would like to receive a paper version or for any questions please feel free to contact Ms. Sandra Lahm via email SLahm@LStelcom.com or via phone: +49 7227 9535 482. ←

Mobile & Microwave

LTE - Long Term Evolution
06th-07th September 2010

PMR/TETRA Training Week
13th-14th September 2010
(PMR - Professional Mobile Radio)

15th-17th September 2010
(Radio Network Planning for PMR/TETRA Networks)

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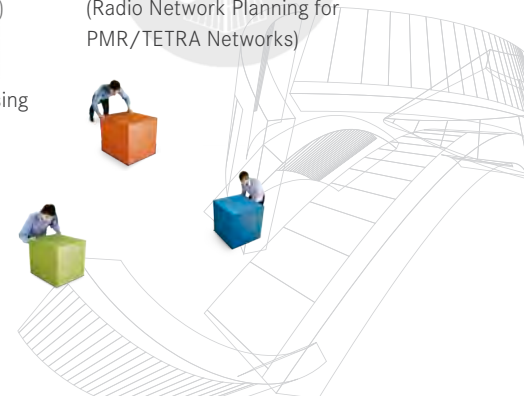
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